

a second buried impurity region of a second conductive type formed between said first buried impurity region and said semiconductor layer;

Sub B'  
a first impurity region of the second conductive type which is formed in the surface of said semiconductor layer and which is electrically connected to said second buried impurity region;

a second impurity region of the first conductive type which is formed in the surface or inside of said semiconductor layer located in a region above said second buried impurity region; and

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a semiconductor element which includes said first impurity region and said second impurity region and which has a switching function formed on the surface of said semiconductor layer,

wherein the withstanding voltage is secured by a depletion layer extending from an interface between said second buried impurity region and said semiconductor layer under the condition where said semiconductor element is turned OFF; and

said second buried impurity region includes a first gap part wherein said second buried impurity region is disconnected.

2. (Amended) The semiconductor device according to claim 1, wherein said semiconductor element includes:

a third impurity region of the first conductive type formed on the surface of said first impurity region so as to be surrounded by said first impurity region; and

an electrode part formed over said first impurity region, said first impurity region  
A1 sandwiched between said third impurity region and said semiconductor layer with an insulating  
film in between the electrode part and the first impurity region.

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Please cancel claim 5 in its entirety without prejudice or disclaimer of the subject matter  
thereof.

8. (Amended) The semiconductor device according to claim 1, wherein said first buried  
A2 impurity region includes a recessed part wherein a surface of said first buried impurity region is  
recessed in the direction away from said second impurity region in a part located, approximately,  
directly beneath said first gap part or a second gap part wherein said first buried region is  
disconnected.

10. (Amended) A semiconductor device including:

a semiconductor substrate having a main surface;

a semiconductor layer of a first conductive type formed on the main surface of said  
semiconductor substrate;

A3 a buried impurity region of the first conductive type formed between said semiconductor  
substrate and said semiconductor layer;

a first impurity region of the first conductive type which is formed on the surface of said  
semiconductor layer and which is electrically connected to said buried impurity region;

a second impurity region of a second conductive type formed on a surface of said  
semiconductor layer located in a region above said buried impurity region, and

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a semiconductor element which includes said first impurity region and said second impurity region and which has a switching function formed on the surface of said semiconductor layer,

wherein a withstanding voltage is secured by a depletion layer extending from an interface between said second impurity region and said semiconductor layer under the condition where said semiconductor element is turned off; and

said buried impurity region includes a gap part wherein said buried region is disconnected.

11. (Amended) The semiconductor device according to claim 10, wherein said semiconductor element includes:

a third impurity region of the first conductive type formed on a surface of said second impurity region so as to be surrounded by said second impurity region; and

an electrode part formed over said second impurity region, said first impurity region sandwiched by said third impurity region and said semiconductor layer with an insulating film in between the electrode part and the first impurity region.

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13. (Amended) The semiconductor device according to claim 10, wherein said gap part is formed in a part that is in the direction to which said depletion layer extends.